SECRET

NPIC/TDS/D-1175-67
11 December 1967

Declass Review by NGA.

MEMORANDUM FOR: Director, National Photographic Interpretation Center

SUBJECT : Proposed Contract with the [redacted] for Design and Fabrication of a Rapid Alignment Device for Microstereoscopes at a Cost [redacted]

25X1
25X1
25X1

1. This memorandum requests approval for the commitment of funds for a contract. The specific request is stated in Paragraph 7.

2. Modern photographic reconnaissance systems frequently record stereoscopic pairs of photographic images which are not inherently aligned; that is, they must be translated, rotated, and contracted or expanded, in one dimension or the other, under the microstereoscope before they can be properly oriented and fused by the mind into a stereoscopic (3-D) image. This unique requirement resulted in the development of prototype anamorphic eyepieces which function as attachments to the [redacted] Zoom 70 microstereoscope and [redacted] high power Stereoviewers. These anamorphic lenses consist of cylindrical zoom or prismatic optical systems, and provide the capability of compensating for the anamorphic distortion (difference between the X and Y scales) often found in stereo reconnaissance imagery. However, these optical compensations require tiring manual adjustment and constant visual comparison of the individual images in two separate optical trains. Consequently, the compensating adjustment process is time-consuming, incomplete, and difficult to achieve without visual superimposition (placing one on top of the other) of the two images.

25X1
25X1

3. The proposed project consists of the design and fabrication of one prototype Rapid Alignment Device. When this instrument is mounted on the ends of the anamorphic eyepieces, it will provide for superimposing the left and right images. The superimposed images will permit the operator to observe the relative effects of each individual optical adjustment and to better visualize the alignment process, thereby speeding up and improving the alignment of stereo pairs.

4. The Contracting Officer will be requested to negotiate this Fixed Priced contract in a single phase: the design and fabrication of a prototype Rapid Alignment Device. The Technical Development Staff has recommended the MonoRAD (monoscopic) version because of its simplicity and significant cost savings in production quantities. The total time anticipated for fabrication and delivery of the prototype instrument is 4 months from the contract date.

NGA Review Complete



SECRET

SUBJECT: Proposed Contract with the [redacted] 25X1
for Design and Fabrication of a Rapid Alignment Device for Micro-
stereoscopes at a Cost [redacted] 25X1

5. The initial concept for this device was outlined in an unsolicited proposal received from the [redacted] In 25X1
response to our development objective, this company has resubmitted technical and cost proposals which are technically satisfactory to the Technical Development Staff. Evaluation of the proposals indicates that the proposed price is reasonable with respect to the technical complexity involved and the current price of equivalent developments.

6. There is no known equipment either under development or commercially available which will satisfy this requirement. This project has been coordinated with DDS&T and COMIREX, and through review of other Agency R&D programs, and it has been determined that there is no duplication.

7. It is requested that approval be granted to negotiate with [redacted] 25X1
25X1 [redacted] for a contract to build the prototype at a
25X1 cost not to exceed [redacted]

[redacted] 25X1
Colonel, USAF
Assistant for Technical Development, NPIC

Attachments:
Catalog Form
25X1 [redacted]

APPROVED:
Director, NPIC Date

Distribution:
Orig & 1 - Addressee
1 - NPIC/SS
2 - NPIC/A/TD
3 - NPIC/TD/DS

25X1 NPIC/TDS/DS: [redacted] (8 December 1967)